

CLAIMS

What is claimed is:

1. A processor-implemented method for interfacing with a distributed computing service, comprising:
  - accessing a semantic interpretation specification that describes rules for semantically exchanging data with the distributed computing service;
  - entering the semantic interpretation specification into a rules engine adapted for providing processor executable procedures;
  - obtaining a set of procedures from the rules engine for interacting with the distributed service based on the semantic interpretation specification;
  - receiving a request for interfacing with the distributed service; and
  - interfacing with the distributed computing service using the set of procedures in response to the request.
2. The method of claim 1, wherein the distributed computing service comprises a Web service.
3. The method of claim 1, wherein the semantic interpretation specification comprises an expert system interpretable specification.
4. The method of claim 3, wherein the semantic interpretation specification comprises rules usable with a rule-based expert system.
5. The method of claim 1, further comprising accessing an ontology specification describing messages of the distributed computing service, and wherein interfacing with the distributed computing service using the set of procedures further comprises forming distributed computing service messages based on the ontology specification for use in the set of procedures.
6. The method of claim 1, wherein interfacing with the distributed computing service using the set of procedures comprises forming a service bridge having a generic programmatic interface adapted to receive the request.

7. An apparatus, comprising:
  - a data transfer interface for providing data connections to a distributed computing service; and
  - a processor arranged to
    - access a semantic interpretation specification describing a behavior used to interface with the distributed computing service;
    - enter the semantic interpretation specification into a rules engine adapted for providing processor executable procedures;
    - obtain a set of procedures from the rules engine for interacting with the data transfer service based on the semantic interpretation specification; and
    - interface with the distributed computing service via the data transfer interface using the set of procedures.
8. The apparatus of claim 7, wherein the data transfer interface comprises a network interface.
9. The apparatus of claim 8, wherein the distributed computing service comprises a Web service.
10. The apparatus of claim 8, wherein the semantic interpretation specification comprises an expert system interpretable specification.
11. The apparatus of claim 10, wherein the expert system rules comprise rules usable with a rule-based expert system.
12. The apparatus of claim 7, further comprising a memory and a service bridge module stored in the memory, the service bridge module operable via the processor to activate the set of procedures based on instructions from a generic programmatic interface of the service bridge module.
13. A computer-readable medium configured with instructions for causing a processor to perform steps comprising:

accessing a semantic interpretation specification describing rules for semantically exchanging data with a distributed computing service;  
entering the semantic interpretation specification into a rules engine adapted for providing processor executable procedures;  
obtaining a set of procedures from the rules engine for interacting with the distributed service based on the semantic interpretation specification;  
receiving a request for interfacing with the distributed service; and  
interfacing with the distributed computing service using the set of procedures in response to the request.

14. The computer-readable medium of claim 13, wherein the distributed computing service comprises a Web service.
15. The computer-readable medium of claim 13, wherein the semantic interpretation specification comprises an expert system interpretable specification.
16. The computer-readable medium of claim 15, wherein the semantic interpretation specification comprises rules usable by a rule-based expert system.
17. The computer-readable medium of claim 13, wherein the steps further comprise accessing an ontology specification describing messages of the distributed computing service, and wherein interfacing with the distributed computing service using the set of procedures further comprises forming distributed computing service messages based on the ontology specification for use in the set of procedures.
18. The computer-readable medium of claim 13, wherein interfacing with the distributed computing service using the set of procedures comprises forming a service bridge module having a generic programmatic interface usable to execute the set of procedures.
19. A system comprising:  
means for providing a distributed computing service;

means for storing a semantic interpretation specification describing a behavior used to interface with the distributed computing service;

means for accessing the semantic interpretation specification for entry into a rules engine adapted for providing processor executable procedures;

means for obtaining a set of procedures from the rules engine for interacting with the distributed service based on the semantic interpretation specification; and

means for interfacing with the distributed computing service using the set of procedures.

20. The system of claim 19, further comprising:

means for accessing an ontology describing messages of the distributed computing service; and

means for forming distributed computing service messages based on the ontology for use in the set of procedures.

21. A method of interfacing with a distributed computing service comprising:

receiving a message from the distributed computing service;

identifying a message type of the message for processing of the message;

accessing a semantic interpretation specification describing rules for semantically exchanging data with the distributed computing service based on the message type;

entering the semantic interpretation specification into a rules engine adapted for providing processor executable procedures;

obtaining a set of procedures from the rules engine for interacting with the distributed service based on the semantic interpretation specification; and

interfacing with the distributed computing service using the set of procedures in response to the message.

22. The method of claim 21, wherein the distributed computing service comprises a Web service.

23. The method of claim 21, wherein the semantic interpretation specification comprises expert system rules.

24. The method of claim 21, further comprising accessing an ontology specification describing the message, and wherein interfacing with the distributed computing service using the set of procedures further comprises forming a response message based on the ontology specification.
25. A system comprising:
- a first data processing arrangement configured to provide a distributed computing service;
  - a data storage arrangement containing a semantic interpretation specification describing a behavior used to interface with the distributed computing service;
  - a second data processing arrangement having a rules engine adapted for providing processor executable procedures, the second data processing arrangement configured to:
    - receive a request to interface with the distributed computing service;
    - access the semantic interpretation specification from the data storage arrangement;
    - enter the semantic interpretation specification into the rules engine;
    - obtain a set of procedures from the rules engine for interacting with the distributed service based on the semantic interpretation specification; and
    - interface with the distributed computing service using the set of procedures.
26. The system of claim 25, wherein the distributed computing service comprises a Web service.
27. The system of claim 25, wherein the a data storage arrangement is adapted for providing the semantic interpretation specification via a network.
28. The system of claim 25, wherein the semantic interpretation specification comprises expert system rules.